

REMARKS

Claims 1-12 are pending in the application. Claims 2 and 3 have been amended. Support for the amendments and can be found in the specification at, e.g., page 7, lines 6-7. No new matter has been added by these amendments.

Information Disclosure Statement

At page 2 of the Office Action, the Examiner stated that the listing of references in the specification is not a proper information disclosure statement. An information disclosure statement, form PTO-1449, and copies of the references listed therein accompany the present response.

35 U.S.C. § 112, Second Paragraph

On pages 2-3 of the Office Action, the Examiner rejected claims 2-3 as allegedly indefinite. According to the Examiner, it is unclear whether the distance (in angstroms) recited in the claims “is between the amino acid pair or is the measurement for the entire polypeptide/protein.”

As amended, claims 2 and 3 recite that the 10 angstroms radius (claim 2) or 50 angstroms radius (claim 3) is measured from the labeled amino acid pair AA1-AA2. In light of these amendments, a person of skill in the art would clearly understand the metes and bounds of claims 2 and 3. Accordingly, applicants request that the Examiner withdraw the rejections.

35 U.S.C. § 102(b)

On pages 3-4 of the Office Action, the Examiner rejected claims 1, 4-5, and 8-12 as allegedly anticipated by Yabuki et al., J. Biomolecular NMR, 11:295-306 (1998) (“Yabuki”).

Independent claim 1 is directed to a method for identifying a binder molecule using a dual amino acid-selective labeling method prior to the generation of nuclear magnetic resonance (NMR) correlation spectra. The claimed method contains steps of generating a first NMR spectrum of a labeled polypeptide or protein (step c), generating a second NMR spectrum of the labeled polypeptide or protein that has been contacted with a potential binder molecule or a

mixture of binder molecules (step e), and comparing the first and second NMR spectra to identify a change of signals that indicates an interaction between a potential binder molecule and the labeled polypeptide or protein.

For a prior art reference to anticipate a claimed invention, that reference must disclose exactly what is claimed. Each and every element of the claimed invention must be disclosed in enabling detail. *See Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991). Yabuki does not anticipate the claimed method because it fails to disclose generating the two separate NMR spectra recited in the claims (one spectrum generated in the absence of a potential binder molecule and the other spectrum generated in the presence of a potential binder molecule) and the subsequent comparing of these two spectra to identify an interaction between a potential binder molecule and a polypeptide or protein. Contrary to the Examiner's comments at the bottom of page 3 of the Office Action, Yabuki does not describe comparing a first and second NMR spectra to identify a molecule that binds to a protein, as is required by independent claim 1 and the claims that depend therefrom. Accordingly, Yabuki cannot anticipate the claimed invention. Applicants request that the Examiner withdraw the rejection.

35 U.S.C. § 103(a)

On pages 4-5 of the Office Action, the Examiner rejected claims 2, 3, 6, and 7 as allegedly obvious over Yabuki in view of WO 97/18471.

For the reasons provided above, Yabuki does not anticipate the claimed invention.

WO 97/18471 does not add what is lacking in Yabuki. WO 97/18471 provides no suggestion or motivation to modify the labeling technique of Yabuki to arrive at the identification method of independent claim 1 and the claims that depend therefrom. In particular, nothing in WO 97/18471 suggests using a dual amino acid-selective labeling method to generate the two NMR spectra recited in the claims and subsequently comparing the two spectra to identify an interaction between a binder molecule and a labeled polypeptide. Accordingly the cited references do not render the claimed invention obvious. Applicants request that the Examiner withdraw the rejection.

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CONCLUSIONS

Applicants submit that all grounds for rejection have been overcome, and that all claims are now in condition for allowance, which action is requested.

Attached is a marked-up version of the changes being made by the current amendments. The attached page is captioned "Version with Markings to Show Changes Made." Also attached is a listing of the claims pending upon entry of the amendments presented herein.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 13425-047001.

Respectfully submitted,

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Version with Markings to Show Changes Made

In the Claims:

Claims 2 and 3 have been amended as follows:

2. (Amended) The method of claim 1, wherein the labeled amino acid pair AA1-AA2 is unique within a sphere radius of 10 Å within the polypeptide or protein, wherein the 10 Å radius is measured from the labeled amino acid pair AA1-AA2.

3. (Amended) The method of claim 1, wherein the labeled amino acid pair AA1-AA2 is unique within a sphere radius of 50 Å within the polypeptide or protein, wherein the 50 Å radius is measured from the labeled amino acid pair AA1-AA2.